

# DRIVER DISTRACTIONS AND INATTENTION DATA SUMMARY

ASSEMBLY BILL 770

CHAPTER 710



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Report to the Governor and Legislature

November 2002

Commissioner Dwight O. Helmick

# Department of California Highway Patrol

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## **REPORT TO THE GOVERNOR AND LEGISLATURE 2001/2002**

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## INTRODUCTION

The proliferation of mobile communication devices, particularly the cellular telephone, has enabled us to communicate at any time and anywhere, even while driving. Although they may be a great convenience, a person's ability to drive safely while operating these devices may prove to be compromised by their use. Consequently, guidelines on the use of mobile communication devices may be required, since all people, in general, have limitations in perception and information processing, particularly in a multi-task environment such as operating a motor vehicle.

Recently, a number of cities and states have either banned, restricted, or are considering legislation or ordinances governing the use of cellular telephones while driving. Most have been in response to concerns from the public who perceive cellular telephone use by drivers as a significant distraction. In 2000, the city of Berkeley contacted the California Highway Patrol (CHP) requesting statistics relating to traffic collisions involving cellular telephone use. This inquiry was in response to local requests to consider an ordinance prohibiting their use while driving. At that time, information specific to cellular telephone use and traffic collisions was not being collected.

On October 10, 2001, Governor Gray Davis signed AB 770 (Chapter 710, Nakano), which became effective January 1, 2002. This added Section 2407.5 to the California Vehicle Code. Section 2407.5 reads:

“(a) Any traffic collision report prepared by a member of the Department of the California Highway Patrol or any other peace officer shall include information as to whether a cellular telephone or other driver distraction or inattention is a known or suspected associated factor to the cause of a traffic collision.

(b) Information described in subdivision (a) shall be collected and transmitted to the department on or before July 1, 2002.

(c) The department shall compile the information from its own members and that supplied by other peace officers.

(d) The department shall study the compiled data and make recommendations concerning the issue of driver distractions and inattention as they relate to associated factors to the cause of traffic collisions. The department shall develop recommendations for legislative or regulatory action to address these issues, and, as part of the study, the department shall review and analyze a sample of existing studies relating to the issue of driver distractions and inattention factors to the cause of traffic collisions.

(e) As used in this section, “driver distractions and inattention” include, but are not limited to, the use of cellular telephones, electronic devices, radios, smoking, eating, children, animals, personal hygiene, reading, or other similar distractions.



(f) The department shall submit a report regarding the study described in this section to the Governor and Legislature, including findings and recommendations, on or before December 31, 2002.

(g) This section shall remain in effect only until January 1, 2003, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2003, deletes or extends that date.” (Refer to Annex A.)

## **DATA COLLECTION METHODOLOGY**

The requirement for a Statewide Traffic Records System was established by the National Highway Safety Act of 1966. The development of California's Statewide Integrated Traffic Records System (SWITRS) was spearheaded by the California Highway Patrol with the support and active participation of several other organizations including:

- The League of California Cities
- The County Supervisors Association of California
- The California Peace Officers Association
- The California Office of Traffic Safety
- The California Department of Transportation
- The California Department of Motor Vehicles

## **OVERVIEW OF THE STATEWIDE INTEGRATED TRAFFIC RECORDS SYSTEM**

Motor vehicle traffic collisions are reported on the CHP 555, Traffic Collision Report, or an acceptable modification (Refer to Annex B). The format was designed from input by various SWITRS users. The Collision Investigation Manual (CIM) provides instruction for completing the traffic collision report forms. Approximately 400 city police departments and sheriff's offices and 101 CHP Areas investigate and report these collisions. Each day the CHP's Information Management Division, Support Services Section, receives approximately 3,000 collision reports from these agencies for processing. All reports are checked for completeness and coded for several data elements. State highway related collision reports receive additional coding to identify engineering details and needs.

The following agencies and jurisdictions receive SWITRS data:

The California Department of Transportation (Caltrans) receives collision data for state highway related collisions for their Traffic Accident Surveillance and Analysis System (TASAS). The system is used to identify collision prone locations. Such information is used to propose improvements and to justify priorities for expending traffic safety funds. State highways within cities and counties may benefit by receiving such improvements as signals at the base of freeway ramps or at intersections of state highways and local streets or roads.





## CALIFORNIA OFFICE OF TRAFFIC SAFETY

The California Office of Traffic Safety (OTS) is charged with reducing fatalities, injuries, and economic losses resulting from motor vehicle collisions. This is accomplished through the administration of the California Highway Safety Plan. Collision and victim data are taken from the latest published SWITRS report and used to rank cities and counties in order to facilitate funding decisions and identify emerging traffic safety problem areas.

The California Department of Motor Vehicles (DMV) receives driver related data for its driver record files. This is used to develop and evaluate educational programs. The information is also used to identify individual drivers for enforcement of negligent operator and drinking driver laws (Sections 12810 and 13352 of the California Vehicle Code).



## DATA COLLECTION - INATTENTION/DRIVER DISTRACTION

The use of traffic collision data for the development of enforcement programs, identifying engineering improvements, and supporting educational programs is not new. Traffic records have been analyzed for many years in an attempt to develop solutions that will reduce the frequency and severity of motor vehicle traffic collisions. A concentrated effort by people and organizations tasked with traffic safety responsibilities is required if the incidence and severity of traffic collisions is to be reduced.

The critical aspect of data analysis is ensuring the data is collected accurately and uniformly. To that end, the CHP began collecting data relative to inattentive driving as far back as 2000. Below is the chronology of these data collection efforts:

### November 2000

### **Annex C**

The CHP proactively issued a teletype, otherwise known as a comm-net, requiring officers to compile the following inattention information *effective 01/01/01*.

Cell Phone	Children
Electronic Equipment	Animals
Radio/CD	Personal Hygiene
Smoking	Reading
Eating	Other

### December 2000

### **Annex D**

Allied Agency Information Bulletin #122 issued asking local officers/deputies to collect the same data elements as listed in comm-net, *effective 01/01/01*.

April 2001

**Annex E**

CHP Management Memorandum (MM) #01-19 issued requiring officers to also compile information *effective 04/01/01* specific to cellular telephones as follows:

- Cell phone in use
- Cell phone not in use
- Cell phone none/unknown

April 2001

**Annex F**

Allied Agency Information Bulletin #123 issued asking local officers/deputies to collect the same cellular telephone data as listed in CHP MM #01-19.

September 2001

**Annex G**

Collision Investigation Manual, HPM 40.50, revised to include procedures for the collection of cellular telephone data as outlined in CHP MM #01-19.

October 2001

**Annex A**

Governor Davis signs into law AB 770 (Chapter 710, Nakano), which adds Section 2407.5 to the Vehicle Code, requiring all law enforcement agencies to collect and transmit to the CHP on or before July 1, 2002, the following information:

“...whether a cellular telephone or other distraction or inattention is a known or suspected associated factor to the cause of a traffic collision.”

The collection of cellular telephone data prescribed in MM #01-19 and Information Bulletin #123 began at the request of the Automobile Club of Southern California. This data merely indicates the number of cellular telephones present and/or in-use in a motor vehicle at the time of a traffic collision. There is not necessarily a nexus between this data and the data collected pursuant to new Vehicle Code Section 2407.5 VC, as there is no documentation of possible correlation between the use of the cellular telephone and the *causation* of the collision.

## DATA COLLECTION FOR AB 770

AB 770 required collection of *“information as to whether a cellular telephone or other driver distraction or inattention is a known or suspected associated factor to the cause of the traffic collision.”* Data collected for purposes of this legislation began January 1, 2002 and ended June 30, 2002, a six-month period.

During the six-month period from January 1, 2002 through June 30, 2002, there were 491,083 reported parties involved in traffic collisions in the state of California. Of that total, 2,952 involved fatalities, 190,701 involved injuries, and 297,430 involved only damage to property. Moreover, 5,677 parties involved in these collisions were identified to have contributed to the cause of the collision by being “inattentive” in one of the categories listed below (Figure 1). It is important to note that as reported by SWITRS, “parties” is synonymous with drivers.

Total Number of Parties Involved in Collisions by Inattention Factor January 1, 2002 to June 30, 2002					
Inattention Factor	Fatal	Injury	Property Damage Only	Total	%
Cell Phone	6	264	341	611	11
Electronics	0	25	46	71	1
Radio/CD	0	226	293	519	9
Smoking	0	24	48	72	1
Eating	1	74	132	207	3
Children	1	112	121	234	4
Animals	0	23	28	51	1
Personal Hygiene	1	13	8	22	<1
Reading	1	61	50	112	2
Other*	20	1,572	2,186	3,778	67
<b>Total Parties</b>	<b>30</b>	<b>2,394</b>	<b>3,253</b>	<b>5,677</b>	<b>**100</b>

(\* “Other” includes all inattention factors not identified in the previous categories. Examples include but are not limited to: daydreaming, visual distractions, reading street signs, and statements by drivers of general inattention.)

(\*\* Numbers rounded to nearest percentage point)

Figure 1



**Percentage of Contributing Cause Inattention/Distraction Categories for the Total Parties Involved in "Inattention" Related Traffic Collisions  
January 1, 2002 to June 30, 2002**

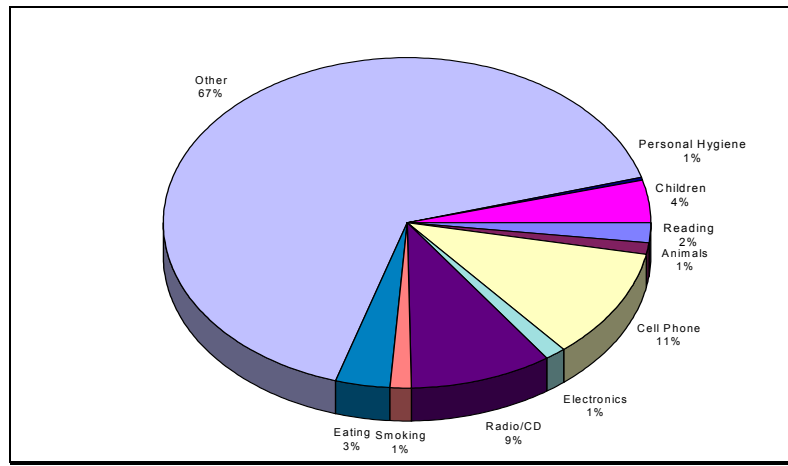


Figure 2

Based on the data reported, one percent of all parties involved in traffic collisions were attributed to some form of inattention. Of the 5,677 inattentive parties, approximately 11% were attributed to cellular telephone use (Figure 2).

Cellular Telephone Usage by Total Parties January 1, 2002 to June 30, 2002	
Status	Parties
Cell Phone in Use	3,927
Cell Phone Not in Use	98,876
Cell Phone None/Unknown	175,790
<b>Total Parties</b>	<b>278,593</b>

Figure 3

The chart above depicts the incidence of cellular telephone usage or presence as reported in the "Special Information" box of the CHP 555. It has no nexus to possible causative factors relating to the use of cellular telephones at the time of collision, as this information would be collected from the "Other Associated Factors" box.

These same charts and analyses are duplicated for an 18 month period in Annex H.

## DATA ANALYSIS

The Department, prior to the introduction of AB 770, developed a more inclusive data collection report which later overlapped the data collected as part of AB 770. The figure below illustrates the timeline for all data collection with respect to driver distraction/inattention and cellular telephone usage.

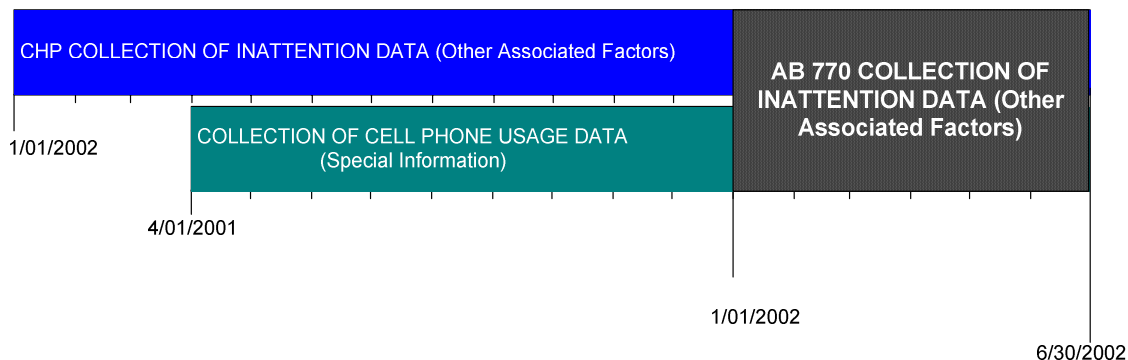


Figure 4

Based on interviews with allied agencies, it is possible that some officers reporting data in the “Special Information” box may have misinterpreted the directions provided in Information Bulletin 123 (Annex F). This may have resulted in their belief that this new bulletin superseded Information Bulletin 122 (Annex D) regarding the collection of “Inattention” data in the “Other Associated Factors” box on page 2 of the CHP 555. As a result, some data may have been omitted in the “Other Associated Factors” box. This procedure will be clarified in the upcoming release of the new Collision Investigation Manual.

It is easy enough to show that one set of results is different from another by looking at a table or graph of the numbers, but determining how significant those numbers might be is less clear. Because the data collected assumes an inattentive activity merely contributed to the cause of a collision, it is not possible to determine how many of the collisions, if any, would have been avoided without the activity. Ideally, it should be known what percent of a collision’s cause was related to an inattentive action. Determining that measurement, based on the variety of variables, is not possible.

Another obstacle in analyzing this information is the lack of comparative data. As such, it is impossible to answer questions relating to trends. Moreover, the methodology used in data capture limited the reporting officer to one inattentive action per collision while several distracting events, such as talking on a cellular telephone while eating and changing the radio station, could have occurred. Unfortunately, this data has not been previously captured and the current data captures only one action per involved party.

## FINDINGS

This report will present aggregate findings from the statewide sample. Data by severity of collision “Fatal, Injury, Property Damage Only (PDO)” will be presented separately as follows:

**Fatal:** Death as a result of injuries sustained in a traffic collision, or an injury resulting in death within 30 days of the collision.

**Injury:** Any injury, other than a fatal injury, including complaint of pain, as a result of a traffic collision.

**Property Damage Only (PDO):** A traffic collision resulting only in damage to any physical object other than a human being. Note: There is no mandate that traffic collisions not involving injury be reported to, or by, a law enforcement agency. As a result, many agencies, by policy, do not respond to or report non-injury traffic collisions. Subsequently, the actual number of PDO collisions may be significantly higher than indicated.



### CHP Form 555 Page 2, Collision Coding Information (Excerpted)

1	2	3	OTHER ASSOCIATED FACTORS (MARK 1 TO 2 ITEMS)	
			A	VC SECTION VIOLATED: CITED <input type="checkbox"/> YES <input type="checkbox"/> NO
			B	VC SECTION VIOLATED: CITED <input type="checkbox"/> YES <input type="checkbox"/> NO
			C	VC SECTION VIOLATED: CITED <input type="checkbox"/> YES <input type="checkbox"/> NO
			D	
			E	VISION OBSCUREMENT:
			F	INATTENTION*: P-CELL PHONE
			G	STOP & GO TRAFFIC
			H	ENTERING / LEAVING RAMP
			I	PREVIOUS COLLISION
			J	UNFAMILIAR WITH ROAD
			K	DEFECTIVE VEH. EQUIP.: CITED <input type="checkbox"/> YES <input type="checkbox"/> NO
			L	UNINVOLVED VEHICLE
			M	OTHER*
			N	NONE APPARENT
			O	RUNAWAY VEHICLE
			SPECIAL INFORMATION	
				HAZARDOUS MATERIAL
				B CELL PHONE IN USE
				C CELL PHONE NOT IN USE
				D CELL PHONE NONE/UNKNOWN

**Inattention Category**

This box is checked if inattention is determined to be an associated factor for the involved party in the cause of the collision. Cell phone inattention is indicated by "P-Cell Phone". The total for the reporting period is 1,524.  
(1/1/01 – 6/30/02)

**Cell Phone In Use**  
12,733  
(4/1/01 – 6/30/02)

**Cell Phone Not In Use**  
210,528  
(4/1/01 – 6/30/02)

**Cell Phone None/Unknown**  
400,667  
(4/1/01 – 6/30/02)

Figure 5

With respect to data in Annex I and Figure 2, it is important to note the distinction between information collected under the category of "Special Information" and "Other Associated Factors." Specifically, although an officer completing a collision report may find that a cellular telephone was in use by the driver prior to a collision, the use of the cellular telephone may not have necessarily been a contributing factor. Collision scenarios provided on the following pages articulate this point.



**EXAMPLE #2:** Party 1 had been using a cellular telephone while legally traversing an intersection. Party 2 was also using a cellular telephone and was traveling alongside of and to the right of Party 1. Party 3 failed to stop for a red traffic signal and entered the intersection, striking Party 2 on the right side, which pushed Party 2 into Party 1. The subsequent investigation found Party 1 and Party 2 could not have avoided the collision and that their use of a cellular telephone was not a contributing factor. Party 3 was found to be the sole cause of the collision. Although Party 3 would be found at fault, the collision report would reflect Party 1 and Party 2 using cellular telephones as shown below. Further, although SWITRS would list this as a single collision, it would also report to those requesting data collected under "Special Information" that two "parties" were using cellular telephones.

### Example #2 - CHP Form 555 Page 2 (Coding)

PRIMARY COLLISION FACTOR LIST NUMBER (#) OF PARTY AT FAULT		TRAFFIC CONTROL DEVICES			TYPE OF VEHICLE			MOVEMENT PRECEDING COLLISION		
3	A VC SECTION VIOLATED: CITED 21453(A) YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	A CONTROLS FUNCTIONING	1	2	3	A PASSENGER CAR / STATION WAGON	1	2	3	A STOPPED
	B OTHER IMPROPER DRIVING*	B CONTROLS NOT FUNCTIONING*				B PASSENGER CAR W / TRAILER				B PROCEEDING STRAIGHT
	C OTHER THAN DRIVER*	C CONTROLS OBSCURED				C MOTORCYCLE / SCOOTER				C RAN OFF ROAD
	D UNKNOWN*	D NO CONTROLS PRESENT / FACTOR*				D PICKUP OR PANEL TRUCK				D MAKING RIGHT TURN
	E FELL ASLEEP*	TYPE OF COLLISION				E PICKUP / PANEL TRUCK W/ TRAILER				E MAKING LEFT TURN
	WEATHER (MARK 1 TO 2 ITEMS)	A HEAD - ON				F TRUCK OR TRUCK TRACTOR				F MAKING U TURN
	A CLEAR	B SIDE SWIPE				G TRUCK / TRUCK TRACTOR W/ TRLR				G BACKING
	B CLOUDY	C REAR END				H SCHOOL BUS				H SLOWING / STOPPING
	C RAINING	D BROADSIDE				I OTHER BUS				I PASSING OTHER VEHICLE
	D SNOWING	E HIT OBJECT				J EMERGENCY VEHICLE				J CHANGING LANES
	E FOG / VISIBILITY FT.	F OVERTURNED				K HIGHWAY CONST. EQUIPMENT				K PARKING MANEUVER
	F OTHER*	G VEHICLE / PEDESTRIAN				L BICYCLE				L ENTERING TRAFFIC
	G WIND	H OTHER*				M OTHER VEHICLE				M OTHER UNSAFE TURNING
	LIGHTING	MOTOR VEHICLE INVOLVED WITH				N PEDESTRIAN				N XING INTO OPPOSING LANE
	A DAYLIGHT	A NON - COLLISION				O MOPED				O PARKED
	B DUSK - DAWN	B PEDESTRIAN				OTHER ASSOCIATED FACTORS (MARK 1 TO 2 ITEMS)				
	C DARK - STREET LIGHTS	C OTHER MOTOR VEHICLE	1	2	3	A VC SECTION VIOLATED: CITED YES <input type="checkbox"/> NO <input type="checkbox"/>				
	D DARK - NO STREET LIGHTS	D MOTOR VEHICLE ON OTHER ROADWAY				B VC SECTION VIOLATED: CITED YES <input type="checkbox"/> NO <input type="checkbox"/>				
	E DARK - STREET LIGHTS NOT FUNCTIONING*	E PARKED MOTOR VEHICLE				C VC SECTION VIOLATED: CITED YES <input type="checkbox"/> NO <input type="checkbox"/>	1	2	3	SOBRIETY - DRUG PHYSICAL (MARK 1 TO 2 ITEMS)
	ROADWAY SURFACE	F TRAIN				D				A HAD NOT BEEN DRINKING
	A DRY	G BICYCLE				E VISION OBSCUREMENT:				B HBD - UNDER INFLUENCE
	B WET	H ANIMAL:				F INATTENTION*				C HBD - NOT UNDER INFLUENCE*
	C SNOWY - ICY	I FIXED OBJECT:				G STOP & GO TRAFFIC				D HBD - IMPAIRMENT UNKNOWN*
	D SLIPPERY (MUDDY, OILY, ETC.)	J OTHER OBJECT:				H ENTERING / LEAVING RAMP				E UNDER DRUG INFLUENCE*
	ROADWAY CONDITION(S) (MARK 1 TO 2 ITEMS)	PEDESTRIAN'S ACTIONS				I PREVIOUS COLLISION				F IMPAIRMENT - PHYSICAL*
	A HOLES, DEEP RUT*	A NO PEDESTRIANS INVOLVED				J UNFAMILIAR WITH ROAD				G IMPAIRMENT NOT KNOWN
	B LOOSE MATERIAL ON ROADWAY*	B CROSSING IN CROSSWALK AT INTERSECTION				K DEFECTIVE VEH. EQUIP.: CITED YES <input type="checkbox"/> NO <input type="checkbox"/>				H NOT APPLICABLE
	C OBSTRUCTION ON ROADWAY*	C CROSSING IN CROSSWALK - NOT AT INTERSECTION				L UNINVOLVED VEHICLE				I SLEEPY / FATIGUED
	D CONSTRUCTION - REPAIR ZONE	D CROSSING - NOT IN CROSSWALK				M OTHER*	X	X		SPECIAL INFORMATION
	E REDUCED ROADWAY WIDTH	E IN ROAD - INCLUDES SHOULDER				N NONE APPARENT				A HAZARDOUS MATERIAL
	F FLOODED*	F NOT IN ROAD				O RUNAWAY VEHICLE				B CELL PHONE IN USE
	G OTHER*	G APPROACHING / LEAVING SCHOOL BUS								C CELL PHONE NOT IN USE
	H NO UNUSUAL CONDITIONS									D CELL PHONE NONE/UNKNOWN

Figure 7

These examples highlight the importance of keeping the data derived from the "Special Information" box on the collision report separate from that obtained from the "Other Associated Factors" box. Using a cellular telephone is not necessarily an indication that the driver was distracted from his/her principal duty of safely operating a vehicle, just as reading a road sign while driving can not *always* be interpreted as being an inattentive driver action. Instead, the investigating officer must determine from interviews with involved parties and witnesses, and analysis of physical evidence whether use of a cellular telephone in any way played a role in the collision.

Data related to the presence/absence of a cellular telephone as listed under the collision report category of “Special Information” does, however, provide important statistical information such as:

- Number of drivers with a cellular telephone available
- How many drivers were actually using a cellular telephone immediately prior to a collision
- In those instances when a cellular telephone was available to the driver, how often it was not in use immediately prior to the collision

With respect to information contained under the category “Special Information,” the Department found during the analysis of collision report data that officers statewide often failed to document on the report whether a cellular telephone was in use, present, or unknown. Therefore, the Department is reminding all law enforcement agencies of the need to *a/ways* document cellular telephone use under the category “Special Information.” As previously written in this report, past CHP Information Bulletins regarding gathering of inattentive and cellular telephone data asked that there *a/ways* be an entry on the report of cellular telephone use, without exception. Whereas under the category of “Other Associated Factors” and as it relates to cellular telephone use, there may only be an entry if a driver was distracted from his/her principle duty of safely operating a vehicle and, as a result, contributed to the collision.

To illustrate this documentation error under the category of “Special Information,” we looked at a sampling of collisions where an officer listed cellular telephone use as an “Other Associated Factor.” In each of these reports there should have always been a corresponding entry in the “Special Information” box whether a cellular telephone was/was not in use, or unknown. However, this was not necessarily the case.

Conversely, if one were to look *first* at the number of entries officers made in the “Special Information” box, and compare it to the number of entries made under the “Other Associated Factors” column these two figures will be vastly different. This disparity is appropriate and exists because cellular telephone use, as explained in the previous examples, does not necessarily translate into an inattentive act or “Other Associated Factor.”

In summary, in reading and analyzing data contained within this report it is critical to understand the difference between simply using a cellular telephone (data entered under the collision report heading “Special Information”) and the frequency of cellular telephone use being a factor contributing to the cause of the collision (as listed in the box “Other Associated Factors”). Finally, the reader need keep in mind that information gathered by officers on collisions reports under the category “Special Information” began in April 2001 at the request of the Automobile Club of Southern California for their analytical purposes. Whereas the inattention data collection by officers on collision reports under the category “Other Associated Factors” was started in January 2001 at the request of the CHP, and later the Legislature, for the specific purpose of determining “the potential safety implications associated with driver distractions.” The data gathered for these two purposes do not always mirror each other, nor do the statistics gathered for one purpose necessarily reflect that documented for the other.

## EXISTING STUDIES

There is concern among some lawmakers, law enforcement officials, and the general public that the increase in cellular telephone use by drivers may be associated with an increase in traffic collisions. This concern has generated studies worldwide of the effect on safety and driver behavior due to the use of cellular telephones and other electronic equipment.

### ***Effects of Cellular Telephone Use on Driver Behavior***, California Highway Patrol, 1997.

The California Highway Patrol researched the issue of the effects of cellular telephone use on driver behavior and discovered that numerous studies have been conducted in recent years. The paper examined the results of five studies, all of which were conducted within the past seven years. These studies were obtained from *Accident Analysis and Prevention*.<sup>1</sup>

Conclusion: The five studies indicate a potential hazard associated with the use of cellular telephones by drivers. Based on the findings, the risks appear to be higher among younger, older, and inexperienced drivers. However, none of the researchers were able to state that cellular telephone use *causes* traffic collisions. The authors of two of the research papers were careful to note that the results of their studies should not be used to restrict cellular telephone use by drivers, and stated that more studies are needed.

One cellular telephone study indicated the use of a hands-free device was statistically more likely to result in a traffic collision, and other studies showed a relationship between intense telephone conversations and increased risk of a traffic collision. Therefore, restricting cellular telephone use to hands-free models may not produce the desired effect of reducing the risk of a collision.

Although the 1997 report identified evidence of widespread opinion that the use of cellular telephones by drivers has the potential to result in traffic collisions, the CHP was not able to find any concrete evidence that cellular telephone use results in traffic collisions. The National Highway Traffic Safety Administration (NHTSA) Fatal Accident Reporting System (FARS) reflected that of 53,343 drivers involved in fatal collisions in 1993, only 28 listed cellular telephone use as a "driver related factor." In comparison, 11,019 collisions were the result of "driving too fast," 1,363 listed "drowsy/asleep" as a driver related factor, and 3,402 were the result of "inattentiveness" by the driver.

### ***An Investigation of the Safety Implications of Wireless Communications in Vehicles***, National Highway Traffic Safety Administration, 1997.

The issues in this report relate to all forms of wireless communications technology that may be used by drivers. The report addresses four specific questions:

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<sup>1</sup> *Accident Analysis and Prevention* is a bi-monthly publication which contains research papers, case studies, and commentary on all aspects of traffic safety.

- Does use of cellular telephone technology while driving increase the risk of a collision?
- What is the magnitude of the traffic safety problem related to cellular telephone use while driving?
- Will collisions likely escalate with increasing numbers of users of cellular telephone technology in the fleet?
- What are the options for enhancing the safe use of cellular telephones by drivers?

Conclusion: Based on the information collected, it was concluded that in some cases the inattention and distraction created by the use of a cellular telephone while driving is similar to that associated with other distractions in increasing collision risk. Both the research studies and crash data reviewed in this report highlight several factors by which cellular telephone use while driving can increase the risk of a collision. Among these, conversation appears to be most associated with the collisions reviewed.

Furthermore, it was determined there were insufficient data to indicate the magnitude of any safety-related problem associated with cellular telephone use while driving. This was a consequence of inadequate reporting and thus it could not be determined whether a problem requiring action existed. Rather it serves to underscore the need for enhancing such data collection at both the state and national levels.

The data also appears to suggest that as the use of in-vehicle wireless communications technology increases there will be an associated increase in related collisions if little changes. However, the accuracy of this prediction in either direction (i.e., increase or decrease in collisions) is uncertain, given the pace at which cellular telephone designs and the functions they can perform are changing. Such changes, along with state legislative initiatives and changes in wireless subscriber characteristics, virtually ensure that usage patterns will change over time and thus influence associated collision trends.

In the report, NHTSA presents a variety of options for enhancing the safe use of cellular telephones by drivers and addresses the many issues raised. These include educational, research, enforcement and legislative considerations and initiatives. The intent is to better define the nature and magnitude of any potential traffic safety problem and assist the public, the states and the industry in making informed decisions on how best to address any issues related to cellular telephone use and driving.

Americans spend substantial amounts of time commuting, and members of the public place high importance on keeping up with their tasks and activities. It is therefore not surprising that individuals will attempt to optimize time in the automobile by doing other things concurrently. It may be unrealistic and perhaps ill-advised to conclude that drivers should have no advanced in-vehicle information systems at their disposal because they might be a source of distraction. A number of intelligent transportation system (ITS) initiatives intended to improve the highway safety and efficiency are, in fact, focusing on increasing such information availability. These initiatives, however, have



heightened NHTSA concern over possible synergistic effects of the various technologies that might increase driver workload beyond acceptable levels.

Until there is a better understanding of the nature and magnitude of any safety related problem, rather than restricting access, the goal should be to make in-vehicle information systems, including wireless communication, as compatible with safe driving as the state-of-the-art allows. This can be accomplished through the application of good engineering and human factors design practice. This must be done while addressing possible adverse safety implications for the population as a whole. In addition, the report offered a number of recommendations for addressing the broad range of issues identified. These recommendations included:

- Improving data collection and reporting.
- Improving consumer education.
- Initiating a broad range of research to better define and understand the problem.
- Addressing issues associated with the use of cellular telephones from vehicles to access emergency services.
- Encouraging enforcement of existing state laws to address inattentive driving behavior.
- Working with states on legislative options.
- Using the National Advanced Driving Simulator (NADS) and instrumented vehicles to study optimal driver/vehicle interfaces.
- Developing a sound basis for carrying out cost benefit analyses.

***The Effect of Cellular Phone Use on Driving Performance***, Toshiro Ishida, Professor, School of Human Sciences, Waseda University, Saitama, Japan; Tsuneo Matsuura, Senior Researcher, National Research Institute of Police Science, Chiba, Japan. 2001.

According to this study, many experiments using driving simulators or real roads have shown that using a cellular telephone while driving may cause a collision because it delays visual information processing by the driver. This research examined the influence on driving performance of cellular telephone use on a course that simulated streets. Driving conditions were driving only, listening to the car radio, hands-free cellular telephone use and using a cellular telephone with the left hand. Driving performance measurements included braking response time to the brake lights of a preceding car, eye movement, distance from the vehicle in front and lane observance. The subjects were 50 drivers, including 10 driving instructors.

The time duration when manipulating a cellular telephone was longer than when manipulating a hands-free set or car stereo. Braking reaction delay time increased in the following order: driving only, car radio, hands-free, and longest of all, cellular telephone. When the cellular telephone was used, car speed was slowest, and the distance from the vehicle in front became the longest.

In this experiment, it was confirmed that use of a hands-free set was effective to some extent, but driving performance was poorer than with driving only. Although different

forms of in-vehicle information apparatus were used, a delay in information processing was consistently found.

Conclusion: From this experiment, it was apparent that cellular telephone use while driving an automobile has the following influences on drivers:

- With single-handed driving using a cellular telephone, brake reaction time becomes delayed.
- Car speed reduces and the distance from the vehicle in front becomes longer.
- The gaze is fixed to the front, eye movement decreases, and division of attention declines.
- With single-handed driving using a cellular telephone there is significant deflection of the steering wheel, and stable driving is difficult.
- When initially operating the cellular telephone, glance time towards the apparatus is substantial and the driver will be looking aside.

Although it was confirmed in this experiment that the use of a hands-free kit was effective to some extent, even across different forms of use, in-vehicle information apparatus will consistently delay information processing by the driver. In the future, engineering research and development with human consideration was regarded as necessary in respect of operation, layout and use of such apparatus.

On the basis of the related reports and this research from November 1999, the National Police Agency forbade cellular telephone use, except for hands-free, during driving. The examination of the subsequent collision trend is also a future subject for research.

***Influence of Mobile Phone Use While Driving***, T. Hugh Woo, Associate Professor Dept. of Transportation, National Chiao Tung University, Hsinchu, Taiwan; Jawkuan Lin, Associate Professor, Dept. of Planning, Feng Chia University, Taichung, Taiwan. 2001.

Many recent investigations and reports examined by the research team revealed that mobile telephone use while driving may seriously affect traffic safety. The increased rate of mobile telephone ownership in Taiwan was the highest among Asian countries for year 2000, with about four sets per five persons. A study was initiated by the Ministry of Transportation and Communications to examine and investigate the influence of mobile telephone use while driving in order to determine the legislation needs. Data were collected in four areas: driving reaction test using a simulator, collision reports, questionnaires to drivers involved in a collision, and a general public opinion survey.

It was found from the driving simulator test that the reaction time for Taiwanese drivers using mobile telephones was significantly longer than when not using a mobile telephone. Age and gender were also found to affect the reaction time. For a four-month period in three selected cities, 3,075 collision reports were examined and revealed an involved driver carried a mobile telephone in 676 cases, and an involved driver was using it in 133 cases. Unsurprisingly, drivers who did not own mobile telephones were more inclined to support the ban of using mobile telephones while driving. Although the majority of the general public was aware of the adverse effects of

using a mobile telephone while driving, only 44.2 percent of the responders supported a legislative ban.

Based on the conclusions of this study, the Legislative Yuan of Taiwan passed a law to ban the use of hand-held mobile telephones while driving. The regulation became effective September 1, 2001, imposing a violation fine of NT \$3,000 (approximate to US \$90) for drivers and NT \$1,000 for motorcyclists.

Conclusion: From the results of this study, the following conclusions were offered:

- Drivers were less responsive while having a conversation over a hand-held mobile telephone.
- Female drivers were more adversely affected by mobile telephone use than male drivers when faced with obstacles falling in front of the vehicle.
- Older drivers were more adversely affected by mobile telephone use than younger drivers.
- The majority of the public in Taiwan recognized the adverse effects of mobile telephone use upon driving safety, whereas less than half supported a legislative ban.

**Visual Distraction While Driving**, Hajime Ito, Director, General Manager, General Transportation Systems Development Division, Yazaki Meter Co., Shizuoka, Japan; Hiroshi Uno, ITS Human Engineering, Safety and IT Research Division, Japan Automobile Research Institute, Ibaraki, Japan; Bunji Atsumi, Project Manager, Vehicle Evaluation & Engineering Div., Toyota Motor Corporation, Aichi, Japan; Motoyuki Akamatsu, Group Leader, Institute for Human Science and Biomedical Engineering, National Institute of Advanced Industrial Science and Technology, Ibaraki, Japan. 2001

One of the problems brought into focus by the development of navigation and other Intelligent Transport Systems (ITS) devices is that the operation of such devices draws the driver's eye from the visual field where it belongs while driving and creates a visual distraction that may impede safety.

The article provided background information and summarized worldwide trends in research on collision rates, the special characteristics of visual behavior and the effects of visual distraction on drivers and vehicle behavior. It also reported on the efforts of the International Organization for Standardization (ISO) and related technological trends. Finally, it defined a number of topics for future research in the field of human engineering.

The study concluded: One argument that can be made is that when one considers the damage to vehicles and people caused by automobile collisions, it would be best if drivers did nothing other than what is necessary to drive safely. And yet, as a practical problem, while everyone agrees that non-driving activities should not be too numerous or too complicated, nobody suggests banning them completely.

For example, ITS devices such as the route guidance function of car navigation systems can be effective in reducing driver indecision and lead to smoother driving. The Front Vehicle Collision Warning System, which is expected on the

market in the near future, has been developed to improve collision avoidance. However, if the information does not reach the driver he/she may take inappropriate action and worsen the situation.

Non-ITS devices such as car audio systems can cause mental distraction in drivers but are socially acceptable because they reduce stress while driving and help prevent sleepiness due to boredom. In this way, many items have both negative and positive effects, and it is the negative effect that must be addressed.

In this way, the topic of how much non-driving glancing and operation is permissible while driving, particularly the appropriate range for looking at ITS devices, is a field of research that will continue to attract attention. This article reported on research on this acceptable range, but it was extremely difficult to establish a given line indicating exactly "how much." Trends in research on applied human engineering, trends in standardization and themes for future research were presented. In the future, it will be important not only to promote research and standardization efforts but also, since the pace of product and system development is so fast in this field, one must be flexible enough to adopt new technologies as they become known.

Many international organizations are involved in the standardization of the broad fields of automobiles, electronics, communication and human engineering. Since each country's governmental agencies are also involved, legislation must be kept in mind as research and development precedes. A number of organizations in Japan are working on research and development of ITS systems. In the field of human engineering, promising research is also being conducted on driver workload and accommodation to various driving operations themselves.

Moreover, it is important that those who put ITS products in vehicles, that is, the manufacturers who sell them, guarantee those systems will not increase the risk of collisions. The ISO is working on the standardization of product and system assessment, which hopefully can also be applied.

***High-tech Ford Test Generates Data on Motorist Distractions***, Lawrence Ulrich, Knight Ridder Newspapers. 2001.

Ford Motor Co. has added its voice to the chorus of experts warning that using an in-vehicle telephone can be dangerous.

The automaker conducted tests using its Virtual Test Track Experiment, or VIRTTEX. The \$10-million, full-motion driving simulator looks like a NASA-engineered capsule, but Ford developed it to explore possible driving distractions created by in-car cell telephones, navigation systems and other high-tech devices.

Over the past year, Ford has driven about 500 test subjects to distraction inside VIRTTEX, a vast white dome perched on spidery hydraulic legs 11

feet off the laboratory floor in Dearborn, Mich. VIRTTEX simulates sound and motion in a wrap-around projection of a road and traffic.

Preliminary VIRTTEX results show that a ringing telephone may be more distracting than talking on the telephone while driving. And teenagers may be at higher risk for distraction-related collisions.

Researchers said that younger drivers have much more trouble managing multiple tasks while driving than adults - despite teens' otherwise superior skills with contemporary gadgets and gizmos. Ford cited teens' inexperience behind the wheel as the problem.

"Teens have much more problem with split-attention tasks than an adult who's been driving for 30 years," said Larry Cathey, a technical specialist at Ford's Scientific Research Laboratory.

Cathey said young drivers are more prone to straying from their lane when trying to do two things at once. They're not good at dividing attention between dialing a telephone and driving, tending to stare at the digits instead of taking regular glances at the road, he said.

"A lot of it sounds like common sense, but you have to back that up with objective data, to settle the arguments in public and government on how to manage the workload safely," he said.

Ford plans to share its results with federal officials, other auto manufacturers and other researchers.

## **CONCLUSION**

Driver distraction is a common factor in traffic collisions. Given the explosive growth of in-car electronics (cellular telephones, navigation systems, wireless Internet, information and entertainment systems, night vision systems, etc.) and the growing concern with distraction and safety implications, it is vital that we understand the risks from distraction associated with such technologies. Although the traffic collision data collected suggests the use of electronic devices while driving may increase the risk of a collision, the actual magnitude of this risk is uncertain. Specific information about the degree of influence of cellular telephones in collisions, for example, is difficult to obtain.

Because of this, it is important to recognize driver distraction as the issue, not a particular device. While some may view cellular telephones as the cause of most driver distraction related collisions, data shows there are in fact many distracting behaviors drivers engage in. Based on the traffic collision data collected, a car radio or compact disc (CD) player is associated with nearly as many collisions as a cellular telephone (Figure 1). It would prove difficult to justify prohibiting a driver from using a cellular telephone and not address the use of a car radio/CD player.

Mobile communication has become a mainstay of American society, particularly, in the wake of the terrorist attacks of September 11, 2001. The public has been encouraged

to become actively involved in the safety and security of our country by being cognizant of their surroundings and reporting any suspicious activities. A cellular telephone is an effective tool for this purpose, as well as for personal safety.

Further, in the 1970's, call boxes began appearing along freeways as a means to summon assistance to disabled motorists. Today, as a result of the cellular telephone, some jurisdictions are reducing or eliminating the number of call boxes due to lack of use.

An additional concern of restricting or banning the use of electronic devices or cellular telephones would be the potential adverse effect on emergency services personnel. A glance inside any emergency vehicle (police car, fire truck, ambulance) would reveal a plethora of electronic devices (radios, emergency lighting controls, mobile digital terminals, etc.), not to mention a cellular telephone. These are all devices that could possibly be affected by a legislative ban or restriction of in-vehicle electronics. While it is possible to exempt these vehicles from compliance, it would be unreasonable for the police officer driving while talking on a cellular telephone to take enforcement action against a citizen doing the same.

As stated earlier, until we have a better understanding of the nature and magnitude of any safety related problem, rather than prohibiting access, the goal should be to make in-vehicle information systems, including wireless communication, as compatible with safe driving as technology allows.

## **RECOMMENDATIONS**

In order to positively impact the development of future safe driving strategies, the California Highway Patrol recommends the following:

1. Continue collection and reporting of collision data related to driver distraction.
  - A. Extend the mandate for law enforcement agencies to collect inattentive driving information, similar to AB 770 (Chapter 710, Nakano 2001) to December 31, 2005, with reporting of this data to the CHP as prescribed by the Department.
  - B. Require the Department to report its finding to the Governor and Legislature no later than December 31, 2006. By continuing to monitor the driver distraction related traffic collision statistics, a more complete data history would be available to support or reject claims of device-related distractions.
2. Consider whether to require use of the hands-free option when using a cellular telephone while driving.

This mandate could reduce the frequency of cellular telephone use related collisions. At the very least, such a requirement would free a driver's hand to assist in taking an evasive steering maneuver in the event of an emergency.

3. Improve consumer education.

The CHP should seek a traffic safety grant and, thereafter, develop public safety campaigns in cooperation with the cellular telephone industry to educate motorists of the hazards of driver distractions, including use of cellular telephones and a radio/CD.

4. Add an "Inattentive Driving" section to the Vehicle Code.

Currently, there is no specific statute that prohibits inattentive driving. Most inattentive drivers' actions are not to the point of being reckless, merely erratic (fluctuating speed, wandering in traffic lane, etc.). Normally, an officer observing inattentive driving behavior will cite Section 22350 of the Vehicle Code, Unsafe Speed for Conditions. Unfortunately, inattention related citations issued for a violation of this section are lumped into the broad category of speed. This makes subsequent data analysis to determine inattention related to a driver behavior versus exceeding a posted speed limit nearly impossible to isolate. Citations issued for violation of a new inattentive driving statute would prove valuable for subsequent inattentive driver reporting to lawmakers and safety organizations.

5. Continue training law enforcement agencies statewide on the proper documentation of inattention factors, if the requirement for inattentive driver data collection is extended.

Given their many responsibilities, including completion of countless forms, it is understandable that documentation errors by officers will occur. Nevertheless, the CHP should regularly remind law enforcement agencies statewide of procedures related to collision report forms, and specifically data required under the categories "Special Information" and "Other Associated Factors."

## **ANNEX A**



**Assembly Bill No. 770**

**CHAPTER 710**

An act to add and repeal Section 2407.5 of the Vehicle Code, relating to vehicles.

[Approved by Governor October 10, 2001. Filed  
with Secretary of State October 11, 2001.]

**LEGISLATIVE COUNSEL'S DIGEST**

AB 770, Nakano. Cellular telephones: vehicles: study.

(1) Existing law requires the Department of the California Highway Patrol to prepare and, on request, supply to police departments, coroners, sheriffs, and other suitable agencies or individuals, forms for accident reports required under the Vehicle Code that call for sufficiently detailed information to disclose with reference to a traffic accident the cause, conditions then existing, and the persons and vehicles involved.

This bill would require any traffic collision report prepared by a member of the Department of the California Highway Patrol or any other peace officer, to include information as to whether a cellular telephone or other driver distraction or inattention, as defined, is a known or suspected associated factor to the cause of the collision.

The bill would require this information to be collected and transmitted to the department by July 1, 2002.

The bill would require the department to study and make recommendations concerning the issue of driver distractions and inattention as they relate to associated factors to the cause of traffic collisions. The bill would require the department to develop recommendations for legislative or regulatory action to address these issues, to review and analyze a sample of existing studies and statistics relating to the issue of driver distractions and inattention as associated factors to the cause of traffic collisions, and to report to the Legislature and Governor by December 31, 2002.

Because the bill would increase the level of services imposed on local law enforcement agencies, the bill would create a state-mandated local program.

(2) The bill would remain in effect only until January 1, 2003, and as of that date, would be repealed unless a later enacted statute deletes or extends that date.

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that

reimbursement, including the creation of a State Mandates Claims Fund to pay the costs of mandates that do not exceed \$1,000,000 statewide and other procedures for claims whose statewide costs exceed \$1,000,000.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions.

*The people of the State of California do enact as follows:*

SECTION 1. The Legislature finds and declares all of the following:

(a) Cellular telephones and other driver distractions are rapidly becoming a significant concern with regard to highway and traffic safety.

(b) The usage of cellular telephones and other driver distractions will continue to proliferate in motor vehicles.

(c) Future motor vehicles will likely provide drivers with concierge services, web-based information, online e-mail capabilities, CD-ROM access, onscreen and audio navigation technology, and a variety of other information and entertainment services.

(d) In considering these emerging technologies, it is the intent of the Legislature to focus on the potential safety implications associated with driver distractions while using advanced in-vehicle technologies that receive, transmit, or display various types of information, including those that allow drivers to phone, fax, obtain route guidance, view infrared images on a heads-up display, and use the Internet and other electronic devices.

SEC. 2. Section 2407.5 is added to the Vehicle Code, to read:

2407.5. (a) Any traffic collision report prepared by a member of the Department of the California Highway Patrol or any other peace officer shall include information as to whether a cellular telephone or other driver distraction or inattention is a known or suspected associated factor to the cause of the traffic collision.

(b) Information described in subdivision (a) shall be collected and transmitted to the department on or before July 1, 2002.

(c) The department shall compile the information from its own members and that supplied by other peace officers.

(d) The department shall study the compiled data and make recommendations concerning the issue of driver distractions and inattention as they relate to associated factors to the cause of traffic collisions. The department shall develop recommendations for legislative or regulatory action to address these issues, and, as part of the study, the department shall review and analyze a sample of existing



studies and statistics relating to the issue of driver distractions and inattention as associated factors to the cause of traffic collisions.

(e) As used in this section, “driver distractions and inattention” include, but are not limited to, the use of cellular telephones, electronic devices, and radios, smoking, eating, children, animals, personal hygiene, reading, or other similar distractions.

(f) The department shall submit a report regarding the study described in this section to the Governor and Legislature, including findings and recommendations, on or before December 31, 2002.

(g) This section shall remain in effect only until January 1, 2003, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2003, deletes or extends that date.

SEC. 3. Notwithstanding Section 17610 of the Government Code, if the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code. If the statewide cost of the claim for reimbursement does not exceed one million dollars (\$1,000,000), reimbursement shall be made from the State Mandates Claims Fund.




## **ANNEX B**

STATE OF CALIFORNIA  
**TRAFFIC COLLISION CODING**  
 CHP 555 Page 2 (Prop. 1-01) OPI 042

Page of

DATE OF COLLISION (MO. DAY YEAR)		TIME (2400)	NCIC #	OFFICER I.D.	NUMBER
OWNER'S NAME			OWNER'S ADDRESS		NOTIFIED <input type="checkbox"/> YES <input type="checkbox"/> NO
P. ERTY DAMAGE DESCRIPTION OF DAMAGE					


  

	<b>SEATING POSITION</b> 1 - DRIVER 2 TO 6 - PASSENGERS 7 - STATION WAGON REAR 8 - REAR OCC. TRK. OR VAN 9 - POSITION UNKNOWN 0 - OTHER	<b>OCCUPANTS</b> A - NONE IN VEHICLE B - UNKNOWN C - LAP BELT USED D - LAP BELT NOT USED E - SHOULDER HARNESS USED F - SHOULDER HARNESS NOT USED G - LAP/SHOULDER HARNESS USED H - LAP/SHOULDER HARNESS NOT USED J - PASSIVE RESTRAINT USED K - PASSIVE RESTRAINT NOT USED	<b>SAFETY EQUIPMENT</b> L - AIR BAG DEPLOYED M - AIR BAG NOT DEPLOYED N - OTHER P - NOT REQUIRED  <b>CHILD RESTRAINT</b> Q - IN VEHICLE USED R - IN VEHICLE NOT USED S - IN VEHICLE USE UNKNOWN T - IN VEHICLE IMPROPER USE U - NONE IN VEHICLE	<b>M / C BICYCLE- HELMET</b> DRIVER V - NO W - YES  PASSENGER X - NO Y - YES	<b>EJECTED FROM VEHICLE</b> 0 - NOT EJECTED 1 - FULLY EJECTED 2 - PARTIALLY EJECTED 3 - UNKNOWN
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ITEMS MARKED BELOW FOLLOWED BY AN ASTERISK (\*) SHOULD BE EXPLAINED IN THE NARRATIVE.

PRIMARY COLLISION FACTOR LIST NUMBER (#) OF PARTY AT FAULT	TRAFFIC CONTROL DEVICES	1	2	3	TYPE OF VEHICLE	1	2	3	MOVEMENT PRECEDING COLLISION
A VC SECTION VIOLATION: CITED <input type="checkbox"/> YES <input type="checkbox"/> NO	A CONTROLS FUNCTIONING				A PASSENGER CAR / STATION WAGON				A STOPPED
B OTHER IMPROPER DRIVING*	B CONTROLS NOT FUNCTIONING*				B PASSENGER CAR W/ TRAILER				B PROCEEDING STRAIGHT
C OTHER THAN DRIVER*	C CONTROLS OBSCURED				C MOTORCYCLE / SCOOTER				C RAN OFF ROAD
D UNKNOWN*	D NO CONTROLS PRESENT / FACTOR*				D PICKUP OR PANEL TRUCK				D MAKING RIGHT TURN
E FELL ASLEEP*					E PICKUP / PANEL TRUCK W/ TRAILER				E MAKING LEFT TURN
	<b>TYPE OF COLLISION</b>				F TRUCK OR TRUCK TRACTOR				F MAKING U TURN
	A HEAD-ON				G TRUCK / TRUCK TRACTOR W/ TRLR.				G BACKING
	B SIDE SWIPE				H SCHOOL BUS				H SLOWING / STOPPING
	C REAR END				I OTHER BUS				I PASSING OTHER VEHICLE
<b>WEATHER (MARK 1 TO 2 ITEMS)</b>	D BROADSIDE				J EMERGENCY VEHICLE				J CHANGING LANES
A CLEAR	E HIT OBJECT				K HIGHWAY CONST. EQUIPMENT				K PARKING MANEUVER
B CLOUDY	F OVERTURNED				L BICYCLE				L ENTERING TRAFFIC
C RAINING	G VEHICLE / PEDESTRIAN				M OTHER VEHICLE				M OTHER UNSAFE TURNING
D SNOWING	H OTHER*				N PEDESTRIAN				N XING INTO OPPOSING LANE
E FOG / VISIBILITY FT.					O MOPED				O PARKED
F OTHER*	<b>MOTOR VEHICLE INVOLVED WITH</b>								P MERGING
G WIND	A NON - COLLISION								Q TRAVELING WRONG WAY
	B PEDESTRIAN								R OTHER *
<b>LIGHTING</b>	C OTHER MOTOR VEHICLE								
A JAYLIGHT	D MOTOR VEHICLE ON OTHER ROADWAY								
B DUSK - DAWN	E PARKED MOTOR VEHICLE								
C DARK - STREET LIGHTS	F TRAIN								
D DARK - NO STREET LIGHTS	G BICYCLE								
E DARK - STREET LIGHTS NOT FUNCTIONING*	H ANIMAL*								
	I FIXED OBJECT:								
<b>ROADWAY SURFACE</b>	J OTHER OBJECT:								
A DRY									
B WET									
C SNOWY - ICY									
D SLIPPERY (MUDDY, OILY, ETC.)									
	<b>PEDESTRIAN'S ACTIONS</b>								
<b>ROADWAY CONDITION(S) (MARK 1 TO 2 ITEMS)</b>	A NO PEDESTRIANS INVOLVED								
A HOLES, DEEP RUT*	B CROSSING IN CROSSWALK AT INTERSECTION								
B LOOSE MATERIAL ON ROADWAY*	C CROSSING IN CROSSWALK - NOT AT INTERSECTION								
C OBSTRUCTION ON ROADWAY*	D CROSSING - NOT IN CROSSWALK								
D CONSTRUCTION - REPAIR ZONE	E IN ROAD - INCLUDES SHOULDER								
E REDUCED ROADWAY WIDTH	F NOT IN ROAD								
F FLOODED*	G APPROACHING / LEAVING SCHOOL BUS								
G OTHER*									
H NO UNUSUAL CONDITIONS									

<b>SKETCH</b> <div style="text-align: center;">         INDICATE NORTH     </div>	<b>MISCELLANEOUS</b> 
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## **ANNEX C**

BRIP 00016 11/20/00 10.54.31  
FSS3 00001 11/20/00 10.54.23

MIS COMM-NET

11/20/00

ALL FIELD DIVISIONS AND AREA COMMANDERS - ACTION  
ASSISTANT COMMISSIONER STAFF - INFORMATION  
ASSISTANT COMMISSIONER FIELD - INFORMATION  
ENFORCEMENT SERVICES DIVISION - INFORMATION  
FIELD SERVICES SECTION - INFORMATION  
ACADEMY - INFORMATION

ATTENTION: AREA COMMANDERS, UNIFORMED PERSONNEL AND ACCIDENT INVESTIGATION  
REVIEW OFFICERS

REFERENCE: COLLECTION OF DATA FOR INATTENTION, PAGE 2, CHP 555,  
"OTHER ASSOCIATED FACTORS"

IN AN EFFORT TO PROVIDE ENHANCED DATA COLLECTION AND STATISTICS ON TRAFFIC  
COLLISIONS AND TO ADDRESS "OTHER ASSOCIATED FACTORS" IN THE AREA OF  
INATTENTION ON THE CHP 555, PAGE 2, ENFORCEMENT SERVICES DIVISION HAS  
DEVELOPED NEW DATA COLLECTION CODES. THESE CODES WOULD INCLUDE THE USE OF  
CELL PHONE, ON-BOARD NAVIGATION SYSTEM, HEADS-UP DISPLAY, DISTRACTION BY  
ANIMALS, CHILDREN, RADIO, TAPE/CD PLAYER, SMOKING, PUTTING ON MAKE-UP,  
SHAVING, EATING, TALKING AND READING. THESE INATTENTION CRITERIA SHALL BE  
VERIFIED BY WITNESS OR INVOLVED PARTY STATEMENTS, AND/OR PHYSICAL EVIDENCE.  
THIS INFORMATION WILL BE REFLECTED IN THE NEXT REVISION OF HPM 40.50,  
COLLISION INVESTIGATION MANUAL, AND THE CALIFORNIA AUTOMATED REPORTING  
SYSTEM.

EFFECTIVE JANUARY 1, 2001, THE FOLLOWING CODES SHALL BE UTILIZED IN THE  
APPROPRIATE BOX OF THE CHP 555, PAGE 2, "OTHER ASSOCIATED FACTORS", F -  
INATTENTION, PLACED TO THE RIGHT OF THE ASTERISK (FOR EXAMPLE: INATTENTION\*  
P)

AND EXPLAINED IN THE NARRATIVE:

TYPE OF INATTENTION	CODE	DESCRIPTION
CELL PHONE	P	SELF-EXPLANATORY
ELECTRONIC EQUIPMENT	Q	COMPUTERS, FAX, HEADS-UP DISPLAY, ON BOARD
NAVIGATION SYSTEM, TWO WAY RADIO		
RADIO/CD	R	ADJUSTING (INCLUDES HEADPHONES)

SMOKING	S	CIGARS, PIPES, CIGARETTES (LIGHTING)
EATING	T	SELF-EXPLANATORY
CHILDREN	U	DISCIPLINING, DISTRACTED
ANIMALS	V	INTERFERING WITH CONTROL
PERSONAL HYGIENE	W	PUTTING ON MAKE-UP, SHAVING, BRUSHING TEETH,
ETC.		
READING	X	BOOKS, NEWSPAPERS, ETC.
OTHER	Y	EXPLAIN IN NARRATIVE

PLEASE ENSURE THAT ALL TRAFFIC COLLISIONS THAT HAVE AN "OTHER ASSOCIATED FACTOR" OF INATTENTION ARE CODED APPROPRIATELY USING THE ABOVE LISTED CODES.

QUESTIONS REGARDING THIS COMM-NET, SHOULD BE DIRECTED TO OFFICER JOHN PETTIGREW, FIELD SERVICES SECTION, AT (916) 323-1483.

CHP HQTRS/ASSISTANT COMMISSIONER, FIELD



## **ANNEX D**



# INFORMATION BULLETIN *for Allied Agencies*

## BULLETIN NUMBER 122

### COLLECTION OF DATA FOR INATTENTION, PAGE 2, CHP 555, "OTHER ASSOCIATED FACTORS"

In an effort to gather and provide enhanced statistical data regarding traffic collisions involving inattention, the California Highway Patrol has developed new data collection codes to be used effective January 1, 2001. The activity(s) should be verified by the witness(s), involved party statements, and/or physical evidence before documented as an associated factor.

The following codes should be used in the "Other Associated Factors" F - Inattention box on the CHP 555, page 2, and placed to the right of the asterisk (for example: Inattention\* P). An explanation should be included in the narrative portion.

<u>TYPE OF INATTENTION</u>	<u>CODE</u>	<u>DESCRIPTION</u>
CELL PHONE	P	SELF-EXPLANATORY
ELECTRONIC EQUIPMENT	Q	COMPUTERS, FAX, HEADS-UP DISPLAY, ON BOARD NAVIGATION SYSTEM, TWO WAY RADIO
RADIO/CD	R	ADJUSTING (INCLUDES HEADPHONES)
SMOKING	S	CIGARS, PIPES, CIGARETTES (LIGHTING)
EATING	T	SELF-EXPLANATORY
CHILDREN	U	DISCIPLINING, DISTRACTED
ANIMALS	V	INTERFERING WITH CONTROL
PERSONAL HYGIENE	W	PUTTING ON MAKE-UP, SHAVING, BRUSHING TEETH, ETC.
READING	X	BOOKS, NEWSPAPERS, ETC.
OTHER	Y	EXPLAIN IN NARRATIVE

Questions regarding this Information Bulletin should be directed to Field Services Section's Accident Investigation Unit at (916) 323-1483.

OFFICE OF THE COMMISSIONER

OPI 061

DISTRIBUTION: A E G S (Allied Information Bulletin)

CHP 47A (Rev. 2-86) OPI 076

## **ANNEX E**

# *Management Memorandum*

**No.** 01-19 (Expires: 10-1-01 )

TO: ALL COMMANDERS

## COLLECTION OF DATA FOR CELLULAR TELEPHONE USAGE CHP 555, TRAFFIC COLLISION REPORT

This Management Memorandum (MM) establishes policies and procedures for data collection on the use of cellular telephones in traffic collisions.

### **Background**

Cellular telephone use among the motoring public has increased tremendously, and the most common complaint of motorists who have narrowly missed being involved in traffic collisions is that of the inattentive driver talking on a cell phone. This phenomenon has become an issue of public debate and of great interest to the California Legislature. As a result, the Department is expanding data collection efforts to determine what effect, if any, the use of cellular telephones by the motoring public has on the safe operation of a motor vehicle. Currently, the Department collects cellular telephone data only when it is determined to be an "associated factor" in the collision. The Department is expanding its data collection to determine: (1) cellular telephone in use; (2) cellular telephone in vehicle not used at time of collision; and (3) no cellular telephone in vehicle or unknown if there was a cellular telephone in the vehicle at the time of the collision (cannot be determined due to injuries, incapacitation, etc).

### **Policy**

Effective April 1, 2001, whenever an officer documents a traffic collision, report or investigation format, the investigating officer shall note the use, or non use, of a cellular telephone on the CHP 555, Traffic Collision Report, page 2, "Special Information" section.

### **Procedure**

Until a modification to page 2 of the CHP 555 is completed, it will be necessary for the investigating officer to write the information in the "SPECIAL INFORMATION" section, located on the bottom right corner of the CHP 555, page 2 (Attachment). On the lines

below, "A. HAZARDOUS MATERIALS", the officer shall write the following data elements in the spaces provided:

- B. Cell Phone In Use
- C. Cell Phone Not In Use
- D. Cell Phone None/Unknown

After making these additions to the CHP 555, officers shall mark the appropriate box for each driver, corresponding to their cell phone usage.

Example: A three car collision with Driver #1 - Using a cell phone when collision occurred; Driver #2 - Not using a cell phone when the collision occurred; and Driver #3 - No cell phone in the vehicle or unknown if a cell phone was in the vehicle at the time of the collision (cannot be determined due to injuries, incapacitation, etc).

1	2	3	SPECIAL INFORMATION
			A. HAZARDOUS MATERIALS
X			B. CELL PHONE IN USE
	X		C. CELL PHONE NOT IN USE
		X	D. CELL PHONE NONE/UNKNOWN

The contents of this Management Memorandum will be incorporated into the next revision of HPM 40.50, Collision Investigation Manual, Chapter 4, and included in the next revision of the California Accident Reporting Software (CARS). Questions regarding this Management Memorandum should be directed to Field Services Section at (916) 323-1483.

OFFICE OF THE COMMISSIONER

ATTACHMENT

OPI: 061

DISTRIBUTION: A E G S (Accident Investigation Review Officers)

## **ANNEX F**



# INFORMATION BULLETIN *for Allied Agencies*

BULLETIN NUMBER 123

## COLLECTION OF DATA FOR CELLULAR TELEPHONE USAGE CHP 555, TRAFFIC COLLISION REPORT

In an effort to gather and provide enhanced statistical data regarding traffic collisions involving cellular telephones, the California Highway Patrol is expanding its data collection to determine: (1) cellular telephone in use; (2) cellular telephone in vehicle not used at time of collision; and (3) no cellular telephone in vehicle or unknown if there was a cellular telephone in the vehicle at the time of the collision (cannot be determined due to injuries, incapacitation, etc). These new data collection procedures will become effective April 1, 2001.

Until a modification to the CHP 555, Traffic Collision Report, is completed, it will be necessary for the investigating officer to write the information in the "SPECIAL INFORMATION" section located on the bottom right corner of the CHP 555, page 2 (Attachment). On the lines below, "A. HAZARDOUS MATERIALS," the officer shall write the following data elements in the spaces provided:

- B. Cell Phone In Use
- C. Cell Phone Not In Use
- D. Cell Phone None/Unknown

After making these additions to the CHP 555, officers shall mark the appropriate box for each driver, corresponding to their cell phone usage.

Example: A three car collision with Driver #1 - Using a cell phone when the collision occurred; Driver #2 - Not using a cell phone when the collision occurred; and Driver #3 - No cell phone in the vehicle or unknown if a cell phone was in the car at the time of the collision (cannot be determined due to injuries, incapacitation, etc.).

1	2	3	SPECIAL INFORMATION
			A. HAZARDOUS MATERIALS
X			B. CELL PHONE IN USE
	X		C. CELL PHONE NOT IN USE
		X	D. CELL PHONE NONE/UNKNOWN

Questions regarding this Information Bulletin should be directed to Field Services  
Section's Accident Investigation Unit at (916) 323-1483.

OFFICE OF THE COMMISSIONER

ATTACHMENT

OPI: 061

DISTRIBUTION: A E G S (Allied Information Bulletin)




STATE OF CALIFORNIA  
**TRAFFIC COLLISION CODING**  
 CHP 555 Page 2 (Prop. 1-01) OPI 042

Page of

DATE OF COLLISION (MO. DAY YEAR)	TIME (2400)	NCIC #	OFFICER I.D.	NUMBER
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OWNER'S NAME	OWNER'S ADDRESS	NOTIFIED <input type="checkbox"/> YES <input type="checkbox"/> NO
P. ARTY DAMAGE		
DESCRIPTION OF DAMAGE		

<b>SEATING POSITION</b> 	<b>OCCUPANTS</b> A - NONE IN VEHICLE B - UNKNOWN C - LAP BELT USED D - LAP BELT NOT USED E - SHOULDER HARNESS USED F - SHOULDER HARNESS NOT USED G - LAP/SOULDER HARNESS USED H - LAP/SOULDER HARNESS NOT USED J - PASSIVE RESTRAINT USED K - PASSIVE RESTRAINT NOT USED	<b>SAFETY EQUIPMENT</b> L - AIR BAG DEPLOYED M - AIR BAG NOT DEPLOYED N - OTHER P - NOT REQUIRED  <b>CHILD RESTRAINT</b> Q - IN VEHICLE USED R - IN VEHICLE NOT USED S - IN VEHICLE USE UNKNOWN T - IN VEHICLE IMPROPER USE U - NONE IN VEHICLE	<b>M / C BICYCLE- HELMET</b> DRIVER V - NO W - YES  PASSENGER X - NO Y - YES	<b>EJECTED FROM VEHICLE</b> 0 - NOT EJECTED 1 - FULLY EJECTED 2 - PARTIALLY EJECTED 3 - UNKNOWN
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ITEMS MARKED BELOW FOLLOWED BY AN ASTERISK (\*) SHOULD BE EXPLAINED IN THE NARRATIVE.

PRIMARY COLLISION FACTOR LIST NUMBER (#) OF PARTY AT FAULT		TRAFFIC CONTROL DEVICES			TYPE OF VEHICLE			MOVEMENT PRECEDING COLLISION		
		1	2	3	1	2	3	1	2	3
A	VC SECTION VIOLATED: CITED <input type="checkbox"/> YES <input type="checkbox"/> NO	A CONTROLS FUNCTIONING			A PASSENGER CAR / STATION WAGON			A STOPPED		
B	OTHER IMPROPER DRIVING*	B CONTROLS NOT FUNCTIONING*			B PASSENGER CAR W/ TRAILER			B PROCEEDING STRAIGHT		
C	OTHER THAN DRIVER*	C CONTROLS OBSCURED			C MOTORCYCLE / SCOOTER			C RAN OFF ROAD		
D	UNKNOWN*	D NO CONTROLS PRESENT / FACTOR*			D PICKUP OR PANEL TRUCK			D MAKING RIGHT TURN		
E	FELL ASLEEP*				E PICKUP / PANEL TRUCK W/ TRAILER			E MAKING LEFT TURN		
WEATHER (MARK 1 TO 2 ITEMS)		TYPE OF COLLISION			F			F TRUCK OR TRUCK TRACTOR		
A	CLEAR	A	HEAD - ON		G			G TRUCK / TRUCK TRACTOR W/ TRLR.		
B	CLOUDY	B	SIDE SWIPE		H			H SCHOOL BUS		
C	RAINING	C	REAR END		I			I OTHER BUS		
D	SNOWING	D	BROADSIDE		J			J EMERGENCY VEHICLE		
E	FOG / VISIBILITY FT.	E	HIT OBJECT		K			K HIGHWAY CONST. EQUIPMENT		
F	OTHER*	F	OVERTURNED		L			L BICYCLE		
G	WIND	G	VEHICLE / PEDESTRIAN		M			M OTHER VEHICLE		
LIGHTING		H	OTHER*		N			N PEDESTRIAN		
A	JAYLIGHT	MOTOR VEHICLE INVOLVED WITH			O			O MOPED		
B	DUSK - DAWN	A	NON - COLLISION							
C	DARK - STREET LIGHTS	B	PEDESTRIAN		OTHER ASSOCIATED FACTOR(S) (MARK 1 TO 2 ITEMS)					
D	DARK - NO STREET LIGHTS	C	OTHER MOTOR VEHICLE	1	2	3				
E	DARK - STREET LIGHTS NOT FUNCTIONING*	D	MOTOR VEHICLE ON OTHER ROADWAY							
ROADWAY SURFACE		E	PARKED MOTOR VEHICLE							
A	DRY	F	TRAIN							
B	WET	G	BICYCLE							
C	SNOWY - ICY	H	ANIMAL*							
D	SLIPPERY (MUDDY, OILY, ETC.)	I	FIXED OBJECT:							
ROADWAY CONDITION(S) (MARK 1 TO 2 ITEMS)		J	OTHER OBJECT:							
A	HOLES, DEEP RUT*	PEDESTRIAN'S ACTIONS								
B	LOOSE MATERIAL ON ROADWAY*	A	NO PEDESTRIANS INVOLVED							
C	OBSTRUCTION ON ROADWAY*	B	CROSSING IN CROSSWALK AT INTERSECTION							
D	CONSTRUCTION - REPAIR ZONE	C	CROSSING IN CROSSWALK - NOT AT INTERSECTION							
E	REDUCED ROADWAY WIDTH	D	CROSSING - NOT IN CROSSWALK							
F	FLOODED*	E	IN ROAD - INCLUDES SHOULDER							
G	OTHER*	F	NOT IN ROAD							
H	NO UNUSUAL CONDITIONS	G	APPROACHING / LEAVING SCHOOL BUS							

SKETCH

INDICATE NORTH

MISCELLANEOUS

## **ANNEX G**

**M e m o r a n d u m**



Date: September 14, 2001

To: Holders of HPM 40.50 (Traffic Collision Investigation Manual)

From: **DEPARTMENT OF CALIFORNIA HIGHWAY PATROL**

File No.: 1.12175.061

Subject: HPM 40.50, REVISION #1

The Collision Investigation Manual, Chapter 4, has been revised as follows:

- The requirement and instruction for documenting the use, or non-use, of a cellular telephone on the CHP 555, Traffic Collision Report, Page 2, "Special Information" section has been added.

This replaces policy previously contained in Management Memorandum 01-19.

Remove

viii through ix  
4-25 through 4-28

Insert

viii through ix (9-01)  
4-25 through 4-29 (9-01)

OFFICE OF THE COMMISSIONER

ATTACHMENT

OPI: 061

DISTRIBUTION: A D S(ALLIED AGENCIES)

- e. **Under Drug Influence.** The involved party appears to be under the influence of a drug other than alcohol. Explain in the narrative the type of drug known or suspected. Do not use for parked or driverless vehicles. (See H, Not Applicable.)
- f. **Impairment-Physical.** The involved party has physical handicaps such as paralysis, special braces, etc. Includes parties who suffered a heart attack, epileptic seizure, diabetic coma, or other physically incapacitating impairment which may have contributed to the collision. Excludes defective eyesight or hearing if these impairments were adequately corrected at the time of the collision. Do not use for parked or driverless vehicles (See H, Not Applicable.)
- g. **Impairment Not Known.** The collision involves a hit and run driver(s) not at the scene, or the existence of an impairment cannot be determined.
- h. **Not Applicable.** The motor vehicle was parked at the time of the collision. Do not mark this element for an involved party if A through G is applicable.
- i. **Sleepy/Fatigued.** The involved party is not physically handicapped but appears functionally impaired due to exhaustion. Also mark if the party had fallen asleep prior to the collision. Do not use for parked or unoccupied vehicles.( Explain in narrative.)

22. **SPECIAL INFORMATION.** Mark an "X" in this element to indicate that a hazardous material or use of a cellular telephone is involved or believed to be involved. Each column number should correspond with the involved party number on the CHP 555, Page 1.

1	2	3	SPECIAL INFORMATION
			A HAZARDOUS MATERIAL
			B CELL PHONE IN USE
			C CELL PHONE NOT IN USE
			D CELL PHONE NONE/UNKNOWN

a. **Hazardous Material.** This indicates the collision involves a hazardous material or a vehicle known to be or believed to be transporting hazardous materials as defined in VC Section 353 **and**:

- (1) There is a release of hazardous material from any package or container, including a cargo tank (except a vehicle fuel system spilling less than 42 gallons).
- (2) Hazardous material packages or containers have fallen or dropped to the highway without release of their contents.
- (3) There is continuing danger to life or health at the scene due to the presence of the hazardous material.
- (4) When this line is coded, the narrative portion of the report should include, as a minimum, information identifying the material(s) by name, hazardous class, quantity involved, nature of hazardous material involvement, cleanup involved, and if there was continuing danger to life or health at the scene. (See Chapter 2.)

b. **Cellular Telephone.** This indicates the collision involves the use, non-use, or mere presence of a cellular telephone. Mark an "X" in the box that best describes the involved parties action.

- (1) **In Use.** The party was preparing to make or answer a cellular telephone call, talking on a cellular telephone, or in the act of retrieving or replacing a cellular telephone while driving. **(Revised 9-01)**
- (2) **Not in Use.** A cellular telephone was located in the vehicle but was not in use at the time of the collision. **(Revised 9-01)**
- (3) **None/Unknown.** There was no cellular telephone or the officer is unable to determine if a cellular telephone was in the vehicle. **(Revised 9-01)**

NOTE: Until a modification to Page 2 of the CHP 555 is completed, it will be necessary for the investigating officer to write in cellular telephone information in the "SPECIAL INFORMATION" section, located on the bottom right corner of the CHP 555, Page 2, as shown on Page 4-25.

23. **SKETCH INSTRUCTIONS.** A sketch shall be made for every REPORT and INVESTIGATION. All CHP traffic collision documentation shall have a sketch. A sketch reflects the officer's opinion of how the collision occurred.

**SKETCH**

INDICATE NORTH

- a. When more detail or space is required, a large sketch may be drawn on the CHP 555, Page 4, Factual Diagram. Diagramming software can also be used to create the sketch on an added page.
- b. The sketch of the collision scene shall be in proper proportion, although it need not be to scale. The use of a diagram template or straight edge shall be used to improve the clarity of the sketch.
- c. Identify the compass direction North by placing an arrow in the circle located in the upper right corner of the sketch box. Both the sketch and factual diagram shall show North in the same direction.
- d. Identify all highways by official route number or name. Include roadway widths for REPORT sketches.
- e. Identify all relevant elements of the collision scene, such as stop signs, fences, trees, rock walls, etc.
- f. Identify structures or objects involved in the collision, location of traffic control devices, vision obstructions, and unusual or temporary conditions such as barricades in a repair zone.

- g. Write parallel to the bottom of the page so that entries may be read horizontally.
- h. The sketch is optional for counter reports but may be completed with the assistance of the receiving officer.
- i. To ensure uniformity in description and interpretation, the basic symbols shall be used for a SKETCH only. The FACTUAL diagram symbols (see Annex R, Investigation Symbols) may be used to augment but shall not be substituted for the SKETCH symbols.
  - (1) Examples of SKETCH symbols are shown in Annex Q, Sketch Symbols. The small circle identifies the area(s) of impact (AOI).
  - (2) Note the location of the AOI in the narrative with a minimum of two measurements, measuring to permanent reference points such as edge line, center line, lane line, or prolongations of these.
- j. Show every AOI on the sketch. When each additional AOI is indicated, number them consecutively within each circle beginning with the initial AOI. Explain each AOI in the narrative.
- k. Identify paths of vehicles before the AOI by solid lines, even though the vehicles may have been moved prior to the officer's arrival. Place an arrowhead at each AOI (small circle) shown on the sketch. Number the solid lines as necessary to identify vehicles.
- l. Identify paths of pedestrians or animals by dashed lines.

24. MISCELLANEOUS.

- a. The CHP 555 is intended to satisfy the basic data requirement needs of all users of traffic collision information. Individual agencies may have data requirements unique to their records system or administrative procedures. The Miscellaneous space is provided for the purpose of collecting this unique data.
- b. This space may also be used by officers to record additional pertinent information. For example: vehicle damage, information for combinations of vehicles, or photograph information.

c. Reporting agencies may place additional lines or boxes in this space.

d. Users of the California State Traffic Accident Reporting System shall use this space to record information relating to digital photography, such as number of photos taken, individual(s) taking photos, and location of the file containing original images.

MISCELLANEOUS

24



## **ANNEX H**

# Inattention / Cell Phone Usage Data

## January 1, 2001-June 30, 2002

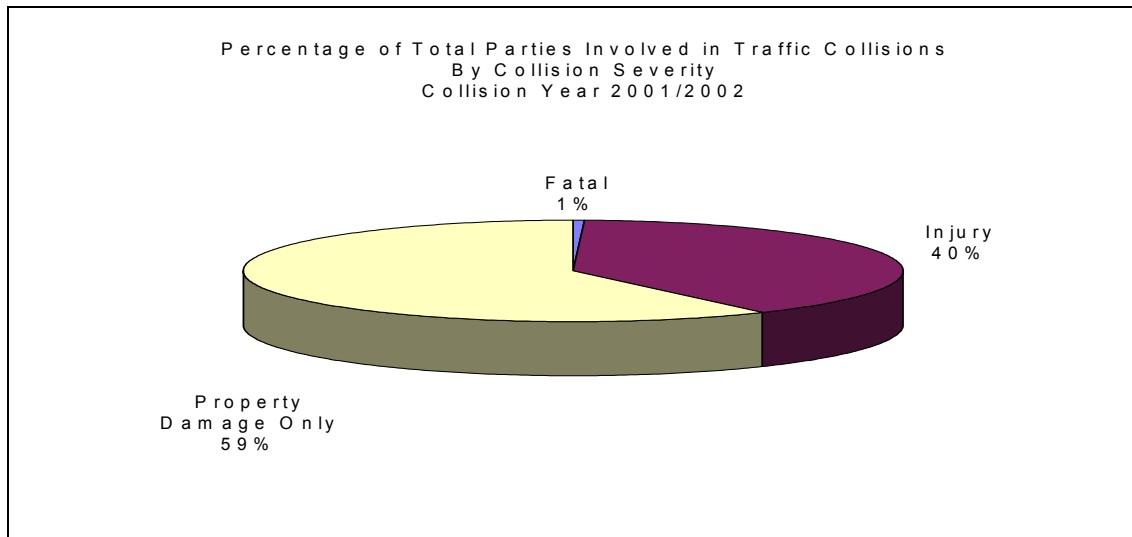


Figure 1

During the 18-month period from January 1, 2001 through June 30, 2002, there were 1,528,309 reported parties involved in traffic collisions in the state of California. Of that total, 9,468 involved fatalities, 604,614 involved injuries, and 914,227 involved only damage to property (Figure 1). Moreover, 13,637 parties involved in these collisions were identified to have contributed to the cause of the collision by being “inattentive” in one of the categories listed below (Figure 2). It is important to note that as reported by SWITRS, “parties” is synonymous with drivers.

Inattention Factor	Number of Involved Parties
Cellular Telephone	1,524
Electronic Equipment	152
Radio/CD	1,288
Smoking	187
Eating	466
Children	560
Animals	127
Personal Hygiene	50
Reading	278
Other	9,005
<b>Total</b>	<b>13,637</b>

Figure 2

Based on the data reported in Figure 2, less than one percent of all parties involved in traffic collisions were attributed to some form of inattention. Of the 13,637 inattentive parties, approximately 11% were attributed to cellular telephone use.

**Percentage of Contributing Cause Inattention/Distracted Categories for the Total Parties Involved in "Inattention" Related Traffic Collisions**

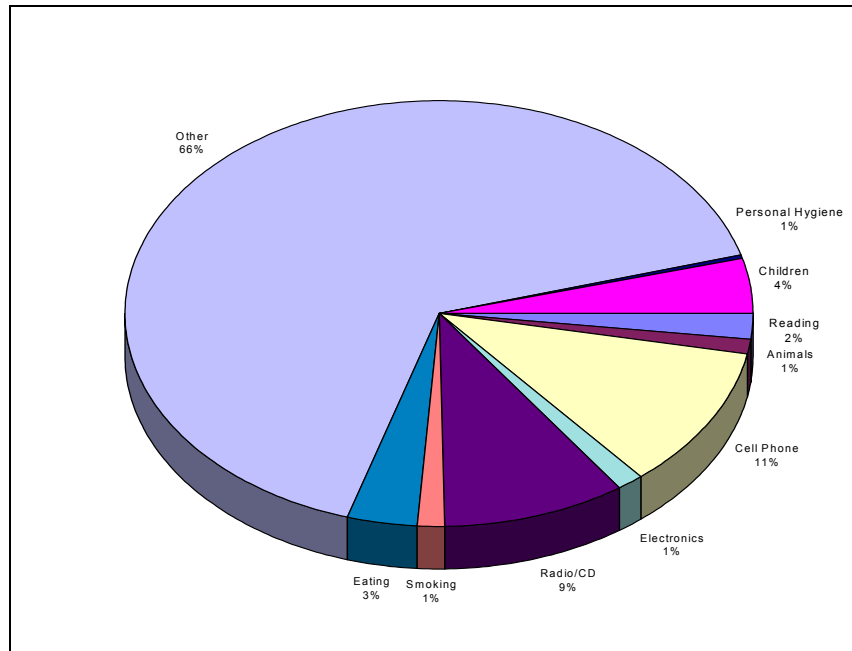


Figure 3

**Total Number of Parties Involved in Collisions by Inattention Factor  
January 1, 2001 to June 30, 2002**

Inattention Factor	Fatal	Injury	Property Damage Only	Total	%
Cell Phone	9	687	828	1,524	11
Electronics	1	55	96	152	1
Radio/CD	6	516	766	1,288	9
Smoking	0	84	103	187	1
Eating	4	178	284	466	3
Children	3	262	295	560	4
Animals	1	60	66	127	1
Personal Hygiene	1	22	27	50	1
Reading	1	122	155	278	2
Other	58	3,740	5,207	9,005	66
<b>Total Parties</b>	<b>84</b>	<b>5,726</b>	<b>7,827</b>	<b>13,637</b>	<b>*100</b>

(\* Numbers rounded to nearest percentage point)

Figure 4

Cellular Telephone Usage by Total Parties April 1, 2001 to June 30, 2002	
Status	Parties
Cell Phone in Use	12,733
Cell Phone Not in Use	210,528
Cell Phone None/Unknown	400,667
<b>Total Parties</b>	<b>623,928</b>

Figure 5

The parties represented in Figures 2 through 4, related to cellular telephones, accounted for only 11% of the less than 1% of all parties in which inattention was identified. This is a disturbing figure when considering the related number of injury and fatal collisions. Unfortunately, it is not possible to determine in those collisions when a cellular telephone was in use whether a hands-free option was available and/or being utilized. Nevertheless, consideration should be given to the benefits associated with requiring drivers using a cellular telephone to use a hands-free option. At the very least, this mandate would free a driver's hand to assist in taking an evasive steering maneuver in the event of an emergency.